

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 September 2005 (15.09.2005)

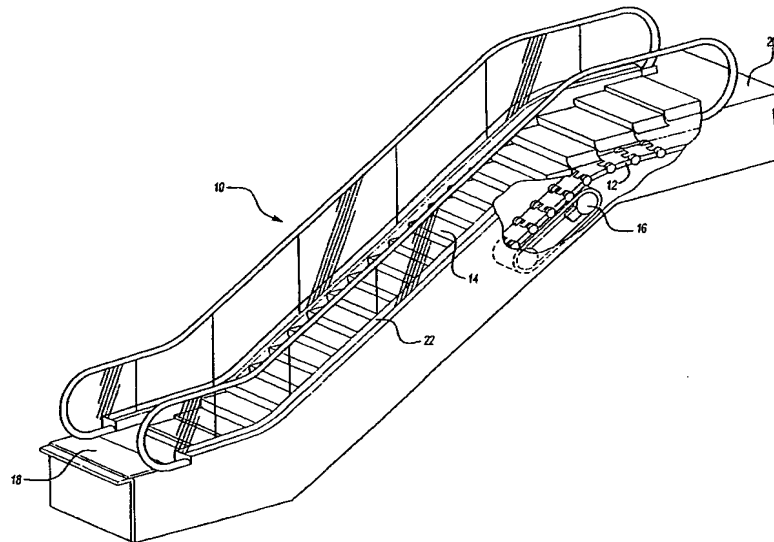
PCT

(10) International Publication Number  
**WO 2005/085118 A1**

- (51) International Patent Classification<sup>7</sup>: **B66B 23/12**
- (21) International Application Number:  
PCT/US2004/004570
- (22) International Filing Date: 17 February 2004 (17.02.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): **OTIS ELEVATOR COMPANY** [US/US]; Ten Farm Springs Road, Farmington, CT 06032 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HOWARD, Carl Q.** [AU/AU]; 1 Rutherglen Avenue, Collinswood, S.A. 5081 (AU). **STUFFEL, Andreas** [DE/DE]; Berlinder Str. 3, 31655 Buckeburg (DE). **HARDIN, Larry W.** [US/US]; 46 Christine Drive, East Hartford, CT 06108 (US). **ALVES, Goldino S.** [US/US]; 162 Garnet Lane, South Windsor, CT 06076 (US).
- (74) Agent: **GASKEY, David J.**; CARLSON, GASKEY & OLDS, 400 W. Maple Rd., Suite 350, Birmingham, MI 48009 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**  
— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: DEVICE TO REDUCE NOISE TRANSMISSION THROUGH THE GAP BETWEEN ESCALATOR STEPS



(57) Abstract: A device (40, 50) for reducing noise levels in passenger conveyor systems (10) at least partially obstructs spacing (36) at the interface between two steps (24, 30) to allow for relative movement between one step and the next. A sound transmission reducing member (40, 50) at least partially obstructs a sound pathway that includes the spacing to reduce the transmission of noise through the spacing. The sound transmission reducing member in one example is a barrier that partially blocks the interface, while in another, it extends completely across the interface. Additionally, sound absorbing material (46) may be secured to the underside of the steps in order to further reduce sound transmission toward the passengers and individuals near the conveyor.



**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*